

Notice of Allowability

Application No.

10/537,966

Examiner

H. T. Le

Applicant(s)

ZEIRINGER ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed October 16, 2007.
2. ☒ The allowed claim(s) is/are 1,3-9,11 and 13-17.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

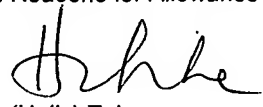
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


H. (Holly) T. Le
Primary Examiner
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EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Applicant's Representative, Mr. Eamonn Morrison, on December 20, 2007.

3. The application has been amended as follows:

Claim 1 has been rewritten as follows:

--Claim 1. Abrasive particles of composition selected from the group consisting of fused or sintered corundums, zirconium corundums, silicon carbides and boron carbide, and mixtures thereof;

the abrasive particles having a sheathing comprising 0.05 - 2.0 weight % of an aqueous binding agent and a 0.05 - 5.0 weight % of a complex oxide relative to the mass of the untreated particles;

wherein the complex oxide comprises $A_xB_yO_z$ where A and B are different elements and x and y are greater than zero, and z corresponding to a product of the sum of (x+y) multiplied by a factor between 1.5 and 2.5;

the sheath coatings of the particles affording enhanced surface area to the underlying substrate particles and being thermodynamically stable and highly adherent, thus effecting enhanced abrasion performance of the particles;

and wherein said aqueous binding agent comprises a silicate.

Claim 10 has been canceled.

Claim 12 has been canceled.

-- Claim 14. A method for the treatment of abrasive particles of composition selected from the group consisting of fused or sintered corundums, zirconium corundums, silicon carbides, and boron carbide, and mixtures thereof,

comprising the steps of:

- i. wetting the abrasive particles in a mixer with 0.05 - 2.0 weight % of a liquid silicate binding agent relative to the mass of the starting particles;
- ii. admixing the wetted abrasive particles with 0.05 - 5.0 weight %, relative to the mass of the starting particles, of fine grained complex oxide comprising $A_xB_yO_z$, until the complex oxide is substantially evenly distributed over the surface of the abrasive particles to form sheaths thereon, wherein A and B are different elements, x and y are greater than zero, and z corresponds to a product of the sum of (x+y) multiplied by a factor between 1.5 and 2.5; and
- iii. heating the sheated abrasive particles to enhance adhesion of the sheathing. --

End of Amendment.

4. The following is an examiner's statement of reasons for allowance: None of the prior art references of record, singly or combined, teach or suggest the specific coating

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in the specific amounts of coating components over specific abrasive particles as claimed. As shown in the specification, abrasives coating with specific components and amounts as claimed result in superior G Factor (abrasive property) than abrasives with coatings according to the prior art.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to H. T. Le whose telephone number is 571-272-1511.

The examiner can normally be reached on 10:00 a.m. to 6:30 p.m., Mondays to Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. Thi Le/
H. (Holly) T. Le
Primary Examiner
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December 20, 2007